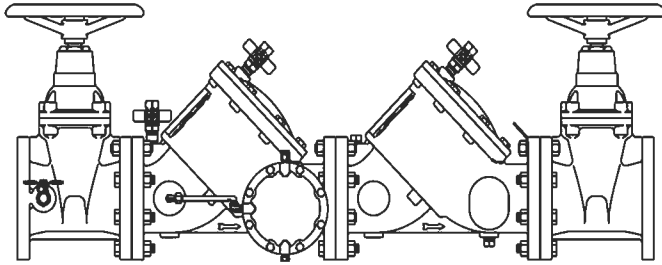




Model 825YD (2-1/2" - 10") Reduced Pressure Assembly



Features

- The **DuraCheck** features all stainless steel check assemblies for corrosion resistance, reduced fouling and longer valve life.
- **DuraCast** ductile iron body for superior strength, corrosion resistance and lighter weight.
- Ultimate mechanical protection of potable water against hazards of cross connection contamination.
- All bronze modular relief valve for ease of maintenance.

Options

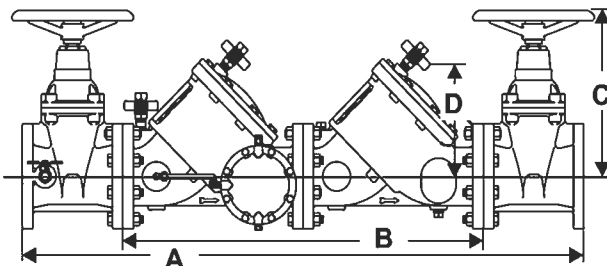
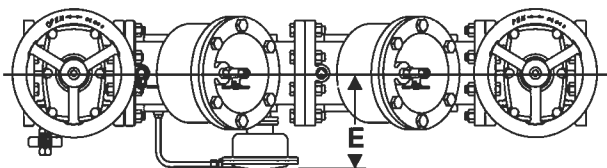
Air Gap Drain, OS & Y Gate Valves,
Left Handed Relief Valve

Specification

Reduced pressure backflow preventer assemblies shall consist of two independent "Y" configured check valves and one differential relief valve.

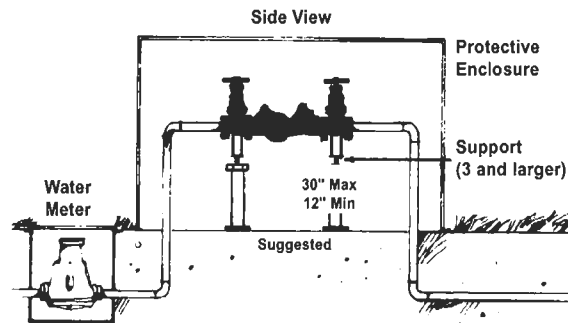
By design, the assembly shall automatically reduce the pressure in the zone between the check valves. Should the differential between the zone and upstream pressure drop to 2 PSI, the differential relief valve will open, maintaining proper zone differential.

The assembly shall be constructed so all internal parts, including seat rings, can be serviced from the top or side or removed while assembly is in line. Relief valve assembly shall be of a modular design for ease of maintenance.



Applications

RP assemblies used to protect against high hazard (toxic) fluids in water services to industrial plants, hospitals, morgues, mortuaries, and chemical plants. They are also used in irrigation systems, boilerfeed, water lines and other installations requiring maximum protection.



Installation

Reduced Pressure Backflow Preventers should be installed with a suggested minimum clearance of 12" between port and floor or grade. They must be installed where any discharge will not be objectionable and can be positively drained away. They should be installed where easily accessible for testing and maintenance and must be protected from freezing. Larger sizes should have support blocks to prevent flange damage. Thermal water expansion and/or water hammer down stream of the Backflow Preventer can cause excessive pressure. Excessive pressure situations should be eliminated to avoid possible damage to the system and assembly.

Dimensions & Weights**

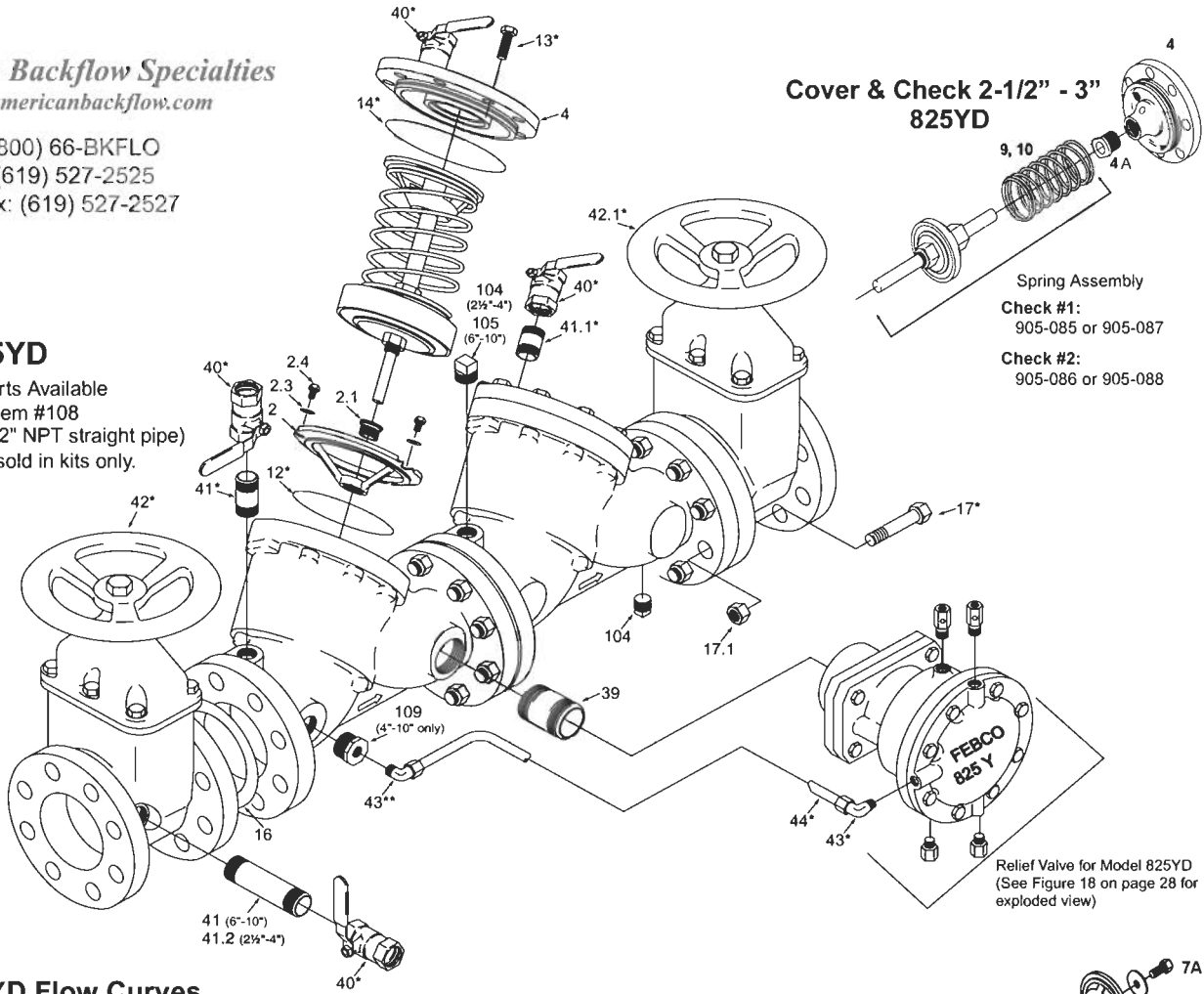
SIZE	A	B	C*	D	E	NET WT. (Lbs.)**
2.5	37 3/16	22 1/16	12 5/8	7 1/2	11	178.0
3	41 11/16	25 9/16	12 7/8	8 1/16	12	213.0
4	50 7/16	32 5/16	14 3/8	11	13	360.0
6	59 11/16	38 9/16	18 7/8	14	15	601.0
8	69 3/16	46 1/16	23 1/2	18	16	892.0
10	84 3/16	58 1/16	27 1/2	22	17	1593.0

* Applies to NRS gated units only.
** Subject to manufacturing tolerance.

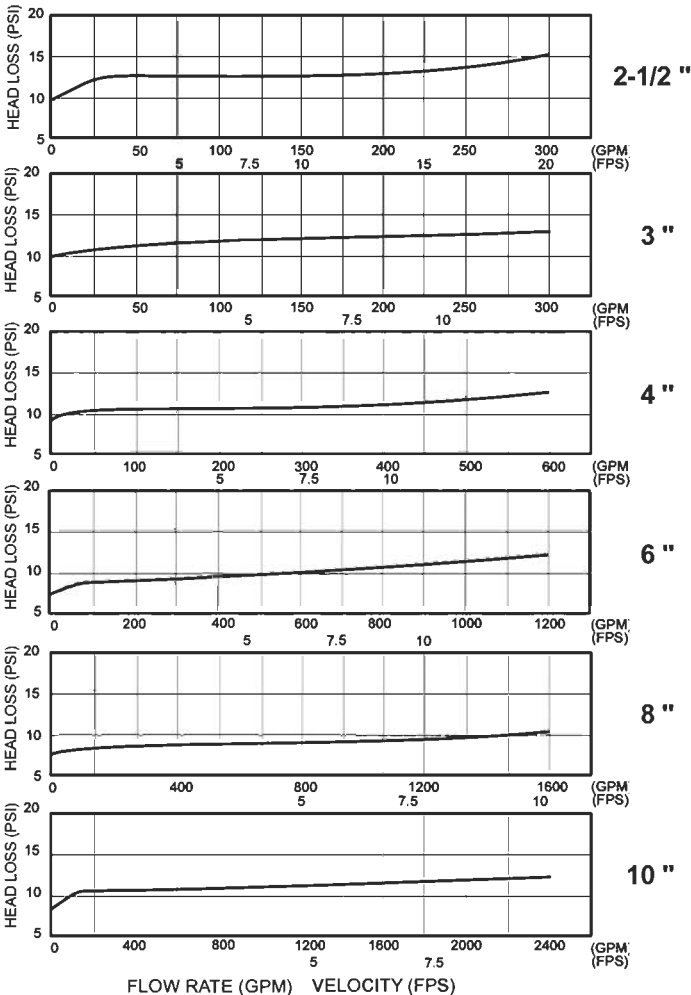
(800) 66-BKFLO
(619) 527-2525
Fax: (619) 527-2527

Model 825YD

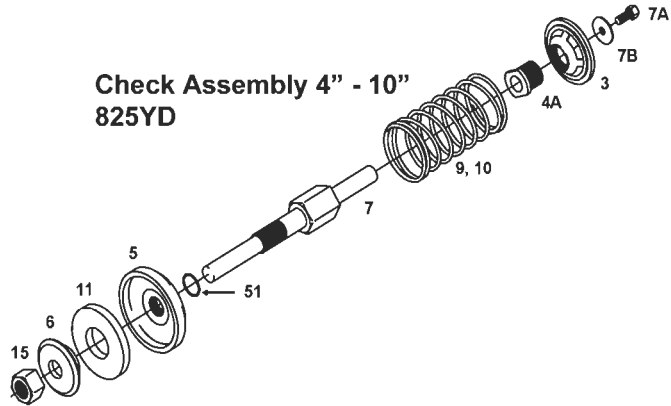
*Commercial Parts Available
** 2-1/2" - 3" use item #108
(3/8" tube x 1/2" NPT straight pipe)
Some parts are sold in kits only.



Model 825YD Flow Curves



Check Assembly 4" - 10" 825YD



Characteristics and Materials

Maximum working pressure	175 PSI (1200 KPa)
Hydrostatic test pressure	350 PSI (2400 KPa)
Temperature range	32°F to 140°F
Fluid	Water
End detail	2-1/2" - 10"
Main valve body	Flanged ANSI B16.1 Ductile iron grade 65-45-12 fusion epoxy coated internal and external
Main valve trim	Bronze
Internal check assembly	Stainless steel
Relief valve body and trim	Bronze
Elastomers	Nitrile
Diaphragms:	Nitrile, fabric reinforced
Springs	Stainless steel
Internal check assembly	Stainless steel
Shut-offs	Non-rising stem, resilient seated gates

Repair Kits & Assemblies - 825YD

DESCRIPTION	SIZE 2½"	SIZE 3"	SIZE 4"	SIZE 6"	SIZE 8"	SIZE 10"
Spring Assembly #1 Check (3, 4A, 5, 6, 7, 7A, 7B, 10, 11, 15, 51)	905-085	905-087	902-466	902-468	902-470	902-472
Spring Assembly #2 Check (3, 4A, 5, 6, 7, 7A, 7B, 9, 10, 11, 15, 51)	905-086	905-088	902-467	905-469	902-471	905-473
Seat Ring Kit (2, 2A, 2C, 2D, 12)	902-386YD	902-385YD	902-384YD	902-383YD	902-382YD	902-381YD
Rubber Parts, CI & DI Boddies (11, 14, 51)	905-059	905-060	905-061	905-062	905-063	905-064
Large Mounting Kit (16, 17, 17A, 17B, 40, 41, Both Ends)	905-036	905-037	905-038	905-039	905-040	905-041
Relief Valve Assy (Type YD Only) (21 - 50)	905-100	905-100	905-100	905-101	905-101	905-101
Relief Valve Kit - Rubber (26, 27, 27A, 31A, 32)	905-102	905-102	905-102	905-102	905-102	905-102
Relief Valve Seat Ring Kit (22A, 22B, 36, 36A, 36B)	905-103	905-103	905-103	905-103	905-103	905-103
Internal Modular Assembly - Relief Valve Kit	905-104	905-104	905-104	905-104	905-104	905-104

Individual Parts

* Quantity required per valve. Some sizes require different quantities

Item No.	Description	Qty*	2½	3	4	6	8	10
2	Seat Ring	1	101-145	101-144	101-136	101-137	101-138	101-139
2.1	Bushing	1	500-291	500-291	500-292	500-292	780-282	780-282
2.3	Washer	6	360-079	360-079	360-095	360-078	360-078	360-078
2.4	Capscrew	6	519-513-04	519-513-04	511-514-06	511-514-06	511-514-06	511-514-06
3	Guide	2	-	-	190-001	190-002	190-003	190-004
4	Cover	2	902-497	902-498	902-499	902-500	902-501	902-502
4.1	Cover Bushing	2	780-312	780-312	780-313	780-313	780-313	780-313
5	Disc Holder	2	190-013	190-014	199-005	190-006	190-007	190-008
6	Disc Washer	2	190-016	190-017	190-009	190-010	190-011	190-012
7	Stem	2	780-332	780-333	780-334	780-335	780-336	780-337
7.1	Screw	2	—	—	511-515-08	511-515-08	511-515-08	511-515-08
7.2	Washer	2	—	—	780-338	780-338	780-338	780-338
9	Outlet Spring	1	780-341	780-342	780-343	780-344	780-345	780-346
10	Inlet Spring	1	780-349	780-350	780-351	780-352	780-353	780-354
11	Seat Disc	2	780-357	780-358	780-359	780-360	780-361	780362
12	O-Ring (Seat Ring)	2	398-237-72	398-242-72	398-253-72	398-263-72	398-272-72	398-274-72
13	Capscrew	16	511-516-08	511-516-08	511-517-10	511-519-12	511-520-12	511-520-14
14	O-Ring (Cover)	2	398-346-72	398-354-72	398-365-72	398-374-72	398-379-72	398-381-72
15	Locknut	2	521-547-00	521-547-00	521-550-00	521-550-00	521-551-00	521-551-00
16	Gasket	1	780-365	780-366	780-367	780-368	780-369	780-370
17	Bolt	4-12	511-019-18	511-019-20	511-019-22	511-020-26	511-020-28	511-021-30
17.1	Nut	4-12	521-019-00	521-019-00	521-019-00	521-020-00	521-020-00	—
17.2	Stud	2-4	—	—	521-019-00	513-020-32	513-020-32	—
40	Ball Valve	3	781-047	781-047	781-047	781-048	781-048	781-048
41	Nipple	1	571-181-46	571-181-46	571-181-46	571-181-56	571-181-56	571-181-56
41.1	Nipple	2	571-181-43	571-181-43	571-181-43	571-181-53	571-181-53	571-181-53
41.2	Nipple	1	571-181-45	571-181-45	571-181-45	—	—	—
43	Tube Fitting Elbow	1	—	—	571-231-23	571-231-23	571-231-23	—
51	O-ring	2	398-014-72	398-014-72	398-116-72	398-116-72	398-118-72	398-118-72
104	Pipe Plug	1-3	578-171-40	578-171-40	578-17140	578-171-40	578-171-40	—
105	Pipe Plug	1-2	—	—	—	578-171-50	578-171-50	578-171-50
108	Tube Fitting	1	571-231-43	571-231-43	—	—	—	—
109	Bushing	1	—	—	571-161-52	571-161-52	571-161-52	571-161-52

Shut-offs: Model 825YD

42	Resilient Sealed NRS (Inlet)	781-005	781-006	781-007	781-008	781-009	781-010
42	Resilient Sealed OS&Y (Inlet)	781-891	781-893	781-895	781-897	781-899	781-901
42.1	Resilient Sealed NRS (Outlet)	781-011	781-012	781-013	781-014	781-015	781-016
42.1	Resilient Sealed OS&Y (Outlet)	781-005	781-890	781-892	781-894	781-896	781-900

Model 825 Type YD (2 1/2" - 10") Parts

Relief Valve Body: Model 825YD

Item No.	Description	Qty	2 1/2	3	4	6	8	10
21	Cover-RV	1	101-113	101-113	101-113	101-113	101-113	101-113
22	Body-RV	1	101-112	101-112	101-112	101-112	101-112	101-112
22.1	O-Ring	1	398-202-72	398-202-72	398-202-72	398-202-72	398-202-72	398-202-72
22.2	Bushing	1	500-290	500-290	500-290	500-290	500-290	500-290
24	Diaphragm Button	1	300-118	300-118	300-118	300-118	300-118	300-118
25	Capscrew	8	511-515-08	511-515-08	511-515-08	511-515-08	511-515-08	511-515-08
26	Diaphragm - Outer	1	400-108	400-108	400-108	400-108	400-108	400-108
27	Diaphragm - Inner	1	400-109	400-109	400-109	400-109	400-109	400-109
27.1	Slip Ring	1	340-103	340-103	340-103	340-103	340-103	340-103
28	Spring	1	630-128	630-128	630-128	630-128	630-128	630-128
30	Main Stem	1	500-298	500-298	500-298	500-298	500-298	500-298
31	Upper Guide	1	101-114	101-114	101-114	101-114	101-114	101-114
31.1	O-Ring	1	398-145-72	398-145-72	398-145-72	398-145-72	398-145-72	398-145-72
32	Seat Disc	1	780-395	780-395	780-395	780-395	780-395	780-395
33	Disc Washer	1	300-119	300-119	300-119	300-119	300-119	300-119
34	Retainer	1	101-116	101-116	101-116	101-116	101-116	101-116
35	Lower Guide	1	240-102	240-102	240-102	240-102	240-102	240-102
36	Seat Ring	1	101-115	101-115	101-115	101-115	101-115	101-115
36.1	Bushing	1	500-299	500-299	500-299	500-299	500-299	500-299
36.2	O-Ring	1	398-229-72	398-229-72	398-229-72	398-229-72	398-229-72	398-229-72
37	Mountain Plate	1	101-143	101-143	101-143	101-142	101-142	101-142
38	Capscrew	1	511-514-07	511-514-07	511-514-07	511-514-07	511-514-07	511-514-07
39	Nipple	1	573-181-81	573-181-81	573-181-81	573-181-81	573-181-81	573-181-81
48	Capscrew	4	519-513-04	519-513-04	519-513-04	519-513-04	519-513-04	519-513-04
50	Air Bleed	1	959-4A1-10	959-4A1-10	959-4A1-10	959-4A1-10	959-4A1-10	959-4A1-10

**Relief Valve
Model 825YD
Figure No. 18**

